

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

This listing of claims will replace all prior versions, and listings of claims in the application. Pending claims are listed as follows:

1. (Currently Amended): A method of detecting motion for digital camera, said method comprising the steps of:

storing gray level values of a specific group in a first image;
capturing real-time gray level values corresponding to said specific group in a real-time image;
comparing said real-time gray level values of said specific group in said real-time image with said gray level values of said specific group in said first image;
determining whether gray level differences between said specific groups in said real-time image and said first image are greater than a predetermined threshold value, wherein said gray level differences greater than said threshold value indicate an object of said real-time image is in motion or else no motion is occurring in the real-time image;
performing a sequential step for the object detected to be in motion when said gray level value differences are greater than said threshold value;~~and~~
storing said real-time gray level values of said specific group in said real-time image as said gray level values of said specific group in said first image;

setting a parameter F equal to 1 when the object of said real-time image is determined to be in motion;

setting said parameter F equal to 0 when the object of said real-time image is determined to be motionless;

checking said parameter F;

sequentially performing the motion detection steps when said parameter F is equal to 0; and

stopping motion detection steps for a predetermined time when said parameter F is equal to 1 and resetting said parameter F equal to 0 to continue the motion detection steps.

2. (Original): The method according to claim 1, wherein said specific group substantially includes one or a plurality of specific points selected from said images.

3. (Original): The method according to claim 2, wherein said specific points are uniformly distributed over entire image.

4. (Original): The method according to claim 2, wherein said specific points are partially concentrated on a central portion of entire image for enhancing detecting efficiency of the central portion of entire image.

5. (Original): The method according to claim 2, wherein an amount of said specific points is adjustable depending on the detecting efficiency.

6. (Original): The method according to claim 1, wherein the step of determining whether gray level differences between said specific groups in said real-time image and said first image are greater than a predetermined threshold value further comprises:

subtracting said gray level values of said specific group in said first image from said real-time gray level values of said specific group in said real-time image to generate a plurality of gray level differences of said corresponding specific groups; and

determining whether said gray level differences are greater than said predetermined threshold value;

wherein any one of said gray level differences being greater than said predetermined threshold value indicates the object of said real-time image is in motion.

7. (Original): The method according to claim 6, wherein said threshold value is adjustable for changing a detection sensitivity of the digital camera.

8. (Original): The method according to claim 1, wherein said sequential step comprises taking photos, taking a motion picture, sounding an alarm, or flashing a LED light to warn a system operator or a guard.

9-10 (Cancelled)

11. (Currently Amended): A method of detecting motion for a digital camera, said method comprising the steps of:

storing gray level values of a specific group in a first image;

capturing real-time gray level values corresponding to said specific group in a real-time image;

comparing said real-time gray level values of said specific group in said real-time image with said gray level values of said specific group in said first image;

determining whether an amount of specific points with different gray levels between said specific groups in said real-time image and said first image is greater than N, wherein the amount of specific points with different gray levels greater than N indicates an object of said real-time image is in motion or else no motion in the real-time image;

performing a sequential step for the object detected to be in motion when the amount of specific points with different gray levels is greater than N; and

storing said real-time gray level values of said specific group in said real-time image as said gray level values of said specific group in said first image-;

setting a parameter F equal to 1 when the object of said real-time image is determined to be in motion;

setting said parameter F equal to 0 when the object of said real-time image is determined to be motionless;

checking said parameter F;

sequentially performing the motion detection steps when said parameter F is equal to 0; and

stopping motion detection steps for a predetermined time when said parameter F is equal to 1 and resetting said parameter F equal to 0 to continue the motion detection steps.

12. (Original): The method according to claim 11, wherein said specific group substantially includes one or a plurality of said specific points selected from said images.

13. (Original): The method according to claim 12, wherein said specific points are uniformly distributed over entire image.

14. (Original): The method according to claim 12, wherein said specific points are partially concentrated on a central portion of entire image for enhancing detection efficiency of the central portion of entire image.

15. (Original): The method according to claim 12, wherein an amount of said specific points is adjustable depending on the detection efficiency.

16. (Original): The method according to claim 11, wherein the step of determining whether an amount of specific points with different gray levels between said specific groups in said real-time image and said first image is greater than N further comprises:

subtracting said gray level values of said specific group in said first image from said real-time gray level values of said specific group in said real-time image to generate a plurality of gray level differences of said corresponding specific groups; and

determining whether an amount of said gray level differences unequal to zero is greater than N;

wherein the amount of said gray level differences unequal to zero being greater than N indicates the object of said real-time image is in motion.

Application No.:09/988,375

February 16, 2005

Reply to Office Action of November 16, 2004

17. (Original): The method according to claim 16, wherein N is adjustable for changing a detection sensitivity of the digital camera.

18. (Original): The method according to claim 11, wherein said sequential step comprises taking photos, taking a motion picture, sounding an alarm, or flashing a LED light to warn a guard.

19-20 (Cancelled)